

**WHAT IS CLAIMED IS:**

1. A composition comprising an embolic particle comprising a shape memory material.
2. The composition of claim 1, wherein the shape memory material comprises a polymer.
3. The composition of claim 2, wherein the polymer is a material selected from the group consisting of polyurethane, polynorbornene, polymethylmethacrylate, poly(vinyl chloride), polyethylene, polyisoprene, styrene-butadiene copolymer, a rubber, and a photocrosslinkable polymer
4. The composition of claim 1, wherein the shape memory material comprises an alloy.
5. The composition of claim 4, wherein the alloy is a material selected from the group consisting of a nickel-titanium alloy.
6. The composition of claim 1, wherein the particle is non-bioabsorbable in a body.
7. The composition of claim 1, wherein the particle comprises a therapeutic agent.
8. The composition of claim 7, wherein the particle defines a cavity, and the therapeutic agent is in the cavity.
9. The composition of claim 1, wherein the particle comprises a radiopaque material.
10. The composition of claim 9, wherein the radiopaque material is selected from the group consisting of gold, tantalum, platinum, and tungsten.

11. The composition of claim 1, wherein the particle is non-spherical.
12. The composition of claim 11, wherein the particle is oblate.
13. The composition of claim 1, wherein the particle is elongated and has a length to width ratio greater than one.
14. The composition of claim 1, wherein the particle is generally cylindrical.
15. The composition of claim 14, wherein the particle includes a groove extending along a longitudinal direction.
16. The composition of claim 14, wherein the particle has a first cross section having a first width, and a second cross section parallel to the first cross section and having a second width different than the first width.
17. The composition of claim 1, wherein the particle has a groove.
18. The composition of claim 1, wherein the particle has a ridge on its outer surface extending along a longitudinal direction.
19. The composition of claim 18, wherein the particle is generally cylindrical.
20. The composition of claim 1, wherein the particle has a plurality of ridges on its outer surface extending along a longitudinal direction.
21. The composition of claim 20, wherein the particle is generally cylindrical.
22. The composition of claim 1, wherein the particle has a cross section having a plurality of symmetrical vertices.

23. The composition of claim 1, wherein the particle has a triangular cross section.
24. The composition of claim 23, wherein the particle has a groove.
25. The composition of claim 23, wherein the particle comprises a portion capable of dissolving in a body.
26. The composition of claim 1, wherein the particle further comprises a second material that does not include a shape memory material.
27. The composition of claim 26, wherein the second material is selected from the group consisting of polyester, nylon, DACRON®, polytetrafluoroethylene, polypropylene, Kevlar®, silk, collagen, hair, and alginate.
28. The composition of claim 26, wherein the second material is in an elongated structure extending from each of the particles.
29. The composition of claim 1, comprising a plurality of embolic particles, wherein at least one of the particles comprises the shape memory material.
30. The composition of claim 29, further comprising a second plurality of embolic particles, a particle in the second plurality having a different shape than a particle in the plurality of embolic particles.
31. The composition of claim 29, comprising a spherical particle and a non-spherical particle.
32. The composition of claim 29, further comprising a second plurality of embolic particles, a particle in the second plurality having a different size than a particle in the plurality of embolic particles.

33. The composition of claim 29, further comprising a second plurality of embolic particles, a particle in the second plurality having a different hardness than a particle in the plurality of embolic particles.

34. The composition of claim 1, further comprising a second, non-solid embolic material.

35. The composition of claim 34, wherein the second embolic material is in the form of a liquid, a gel, or a foam.

36. The composition of claim 1, wherein the particle comprises a material capable of increasing in volume upon exposure to a predetermined stimulus.

37. The composition of claim 36, wherein the material comprises a hydrogel.